UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,938	09/12/2003	Manish Marwah	4366-121	7028

7590 06/25/2008

Douglas W. Swartz, Esq.
SHERIDAN ROSS P.C.
Suite 1200
1560 Broadway
Denver, CO 80202-5141

EXAMINER	
TURNER, ASHLEY D	

ART UNIT	PAPER NUMBER
2154	

MAIL DATE	DELIVERY MODE
06/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/660,938	MARWAH, MANISH	
	Examiner	Art Unit	
	ASHLEY D. TURNER	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/12/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. New consideration base on the arguments applicant has submitted.

Claim Rejections - 35 USC § 112

The Examiner withdraws the rejection of claims 15-18 and 20 under 35 U.S.C. 112, first paragraph so Applicant's arguments are moot.

Claim Rejections - 35 USC § 101

The Examiner withdraws the rejection of claims 15-18 and 20 under 101 so Applicant's arguments are moot.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,3,4,5,6,7,8,9,10,12,13,14 are rejected under 35 U.S.C. 102 (b) as being anticipated by Korpi (US 6,785,223 B1).

Referring to claim 1, Korpi discloses a method for re-establishing an IP protocol call signaling channel (Col.2 lines 10-17 These disadvantages in the prior art are overcome in large part by a system and method according to the present invention. In particular, a gatekeeper according to an embodiment of the invention is able to automatically recover signaling connections that were interrupted due to gatekeeper failure.), comprising: establishing a first call signaling channel between a first; wherein said first call signaling channel provides a first set of call signaling features with respect to a first bearer channel (Col. 2 lines18-22 According to one embodiment, primary and secondary gatekeepers establish a supervisory link with one another while the H.323 calls and the associated H.225 signaling connections are set up between client terminals via the primary gatekeeper).;in response to losing said established first call signaling channel (Col. 2 lines 28-33 If the primary gatekeeper fails, the H.225/H.245 connections go down, but the media connections will continue. The secondary gatekeeper then initiates takeover of the call and sends to affected clients a failure notification message that primary gatekeeper has failed and the secondary gatekeeper is ready to take over and is waiting for re-registration.), sending a keep alive message (Col. 2 lines 22-24 The supervision is done by the secondary gatekeeper sending "keep alive" messages between gatekeepers.) ; in response to receiving a registration confirmation message registration message from said second gatekeeper in reply to said keep alive message (Col. 2 lines 29 -33 The secondary gatekeeper then initiates takeover of the call and sends to affected clients a failure notification message that primary gatekeeper has failed and

the secondary gatekeeper is ready to take over and is waiting for re-registration. Further, the secondary gatekeeper sends a similar notification message of what has occurred to all other affected remote parties to the call.), establishing a second call signaling channel with said second gatekeeper, wherein said second call signaling channel provides said first set of call signaling features with respect to said first bearer channel and effectively re-establishes said first call signaling channel (Col.2 lines 29-38 The secondary gatekeeper then initiates takeover of the call and sends to affected clients a failure notification message that primary gatekeeper has failed and the secondary gatekeeper is ready to take over and is waiting for re-registration. Further, the secondary gatekeeper sends a similar notification message of what has occurred to all other affected remote parties to the call. The clients then reestablish the H.225/H.245 channel by using the original setup message with a new Reestablish parameter. The receiving client receives the message and continues using the existing resources for the call.)

Referring to claim 2, Korpi discloses all the limitations of claim 2 which are described above Ton also discloses "keep alive message comprises a lightweight registration request" (Col. 2 lines 34-38 Further, the secondary gatekeeper sends a similar notification message of what has occurred to all other affected remote parties to the call. The clients then reestablish the H.225/H.245 (inherent to the light weight protocol) channel by using the original setup message with a new Reestablish parameter.)

Referring to claim 3, Korpi discloses all the limitations of claim 3 which are described above. Korpi also discloses "step of sending keep alive message to a second gatekeeper in response to losing said established first call signaling channel comprises sending keep alive message to a plurality of alternate gatekeepers i.e. home agent 1, home agent 2, and wherein said step of establishing a call signaling channel comprises establishing a second call signaling channel with a one of said alternate gatekeepers (Col. 5 lines 48-63 As part of an initialization procedure, in a step 402, Client 1 registers with the gatekeeper GK 1 and Client 2 registers with gatekeeper GK 3 (FIGS. 5A and 6A). In addition, in a step 404, the gatekeepers GK 1 and GK 2 exchange supervisory/synchronization messages (1b of FIG. 5A; FIG. 6A), via their respective restart control units 105, so that the gatekeeper GK 2 can monitor if the gatekeeper GK 1 fails. In particular, a keep-alive message may be sent by the secondary gatekeeper (GK 2) to the primary gatekeeper (GK 1) which responds with a confirmation message. Every time a new call is set up, a call data synchronization message is sent to the secondary gatekeeper GK 2 (and stored, e.g., in memory 304) or stored in a commonly accessible data store (not shown). This data contains all information about the outgoing call (i.e., calling party, called party, aliases, transport addresses and other related information).

Referring to claim 4, Korpi discloses all the limitations of claim 4 which is described above. Korpi also discloses "in response to receiving no registration confirmation message i.e. error code from said alternate gatekeeper i.e. home agent 2 within a first time period re -registering with a gatekeeper i.e. home agent 2." (Col.6 lines 58-67 and Col.7 lines 1-11 receiving this signal causes the Client 1 to re-register in Zone 1 with the gatekeeper GK 1, in a step 420. Next,

in a step 422, Client 1 attempts to re-establish the H.225/H.245 connection (4 in FIG. 5C) by sending a modified version of the original H.323 call setup message. More particularly, an additional parameter, termed "Signaling Connection Reestablishment Invoke," is sent (see 4 in FIG. 5C) to the gatekeeper GK 2. The new parameter indicates to the gatekeeper GK 2 that the connection is a replacement of signaling connections of an existing call between the Client 1 and Client 2. The gatekeeper GK 2 communicates (4 in FIG. 5C; FIG. 6C) with the gatekeeper GK 3 to re-establish the link with Client 2. Client 2 and, in particular, the gatekeeper restart module 111, accepts the call setup information with the new parameter and continues using the same resources for the call. In a step 424, Client 2's gatekeeper restart unit 111 sends a connect message with an additional parameter, termed "Signaling Connection Reestablishment Confirmation," to the gatekeeper GK 3 as confirmation for a successful reestablishment of the call signaling connection.)

Referring to claim 5, Korpi discloses all the limitations of claim 5 which is described above. Korpi also discloses establishing a bearer channel between said first communication endpoint and a second communication, Wherein said call signaling channel carries data related to at least one of control of and features associated with data transferred between said first and second communication endpoints by said bearer channel. (Col. 2 lines 18-40 According to one embodiment, primary and secondary gatekeepers establish a supervisory link with one another while the H.323 calls and the associated H.225 signaling connections are set up between client terminals via the primary gatekeeper. The supervision is done by the secondary gatekeeper

sending "keep alive" messages between gatekeepers. When the primary gatekeeper establishes a call, information about the ongoing call (i.e., calling party, called party, and other related information) is sent to the secondary gatekeeper or stored in a commonly accessible data store. If the primary gatekeeper fails, the H.225/H.245 connections go down, but the media connections will continue. The secondary gatekeeper then initiates takeover of the call and sends to affected clients a failure notification message that primary gatekeeper has failed and the secondary gatekeeper is ready to take over and is waiting for re-registration. Further, the secondary gatekeeper sends a similar notification message of what has occurred to all other affected remote parties to the call. The clients then reestablish the H.225/H.245 channel by using the original setup message with a new Reestablish parameter. The receiving client receives the message and continues using the existing resources for the call.)

Referring to claim 6, Korpi discloses all the limitations of claim 6 which is described above. Korpi also discloses, "wherein said first communication endpoint comprises a telephony device."(Col. 5 lines 11-19 Thus, an H.323 network may be configured to include several different devices. For example, the network may include a terminal for enabling users connected to a LAN to speak, a terminal for enabling a caller resident on the LAN to call a second user through the public switched network and/or a terminal for enabling the adapter to communicate through a wireless trunk, using a wireless telephone. The device may also implement supplementary services according to the H.450 protocol specification).

Claim 10 is likewise rejected using the same reasoning and citations for claim 6 since they recite identical limitations.

Referring to claim 7, Korpi discloses all the limitations of claim 7 which is described above. Korpi also discloses, "wherein said call signaling channel is established according to an ITU-T H. 323 protocol". (Col.1 lines 10-24 The International Telecommunications Union (ITU) H.323 standard allows building of local area network (LAN) attached communication equipment that can communicate via the Internet Protocol (IP). Typically, one or more zones are established, each zone being provided with a gatekeeper for address translation, admissions and bandwidth control, and zone management. Usually gatekeeper (GK) routed signaling is utilized. With gatekeeper routed signaling, an endpoint (e.g., client or gateway) does not send the call signaling (H.225) and media control (H.245) directly to the remote endpoint but to its gatekeeper which then sends the signaling messages to the remote endpoint via its gatekeeper. In calls over several zones and/or administrative domains, several gatekeepers are involved on the signaling path of the call.)

Referring to claim 8, Korpi discloses a communication system, comprising: a first communication endpoint operable to at least one of receive data from and provide data to an Internet protocol network (Col. 2 lines18-22 According to one embodiment, primary and secondary gatekeepers establish a supervisory link with one another while the H.323 calls and the associated H.225 signaling connections are set up between client terminals via the primary gatekeeper) ; a first gatekeeper operable to control aspects of operation of a communication endpoint in communication with said first gatekeeper, wherein said first communication link

provides a first call signaling channel in support of a first real-time communication (Col. 3 lines 57-67 and Col.4 lines 1-2 In accordance with a specific embodiment of the present invention, FIG. 2 illustrates a logical diagram of an H.323 interface to LAN 101. The interface includes a known network terminal/device 10 utilizing the H.323 protocol, and a packet network interface 13 that couples the H.323 device to LAN 101. H.323 terminals/devices and equipment carry real-time voice, video and/or data. It should be noted that H.323 is an umbrella recommendation that sets standards for multimedia communications, including telephony-over-LAN communications. The network can include packet-switched Transmission Control Protocol/Internet Protocol (TCP/IP) and Internet Packet Exchange (IPX) over Ethernet, Fast Ethernet and Token Ring networks.) ; a first communication link between said first communication endpoint and said first gatekeeper (Col.6 lines 50 -65

SCUI 20 further interfaces to the Registration, Admission, Status (RAS) protocol that defines how H.323 entities can access H.323 gatekeepers to perform among other things address translation, thereby allowing H.323 endpoints to locate other H.323 endpoints via an H.323 gatekeeper. The H.225 standard layer 24, which is derived from the Q.931 standard, is the protocol for establishing connection between two or more H.323 terminals and also formats the transmitted video, audio, data and control streams into messages for output to the network interface 13 (e.g., transport over IP network 101). The H.225 layer 24 also retrieves the received video, audio, data and control streams from messages that have been input from network interface 13. User application interface 19, which may be a T.120 protocol interface as well as other types of protocol interfaces, also couples to H.225 layer 24.) ; a second gatekeeper, operable to control aspects of operation of a communication endpoint in communication with

said gatekeeper; and a second communication link between said first communication endpoint and said second communication gatekeeper(Col.6 lines 50 -65

SCUI 20 further interfaces to the Registration, Admission, Status (RAS) protocol that defines how H.323 entities can access H.323 gatekeepers to perform among other things address translation, thereby allowing H.323 endpoints to locate other H.323 endpoints via an H.323 gatekeeper. The H.225 standard layer 24, which is derived from the Q.931 standard, is the protocol for establishing connection between two or more H.323 terminals and also formats the transmitted video, audio, data and control streams into messages for output to the network interface 13 (e.g., transport over IP network 101). The H.225 layer 24 also retrieves the received video, audio, data and control streams from messages that have been input from network interface 13. User application interface 19, which may be a T.120 protocol interface as well as other types of protocol interfaces, also couples to H.225 layer 24.), wherein said second communication link is established after said first communication link is lost and after an exchange of a lightweight RRQ message and RCF message between said first communication endpoint and said second communication gatekeeper wherein said second communication link provides a second call signaling channel; that replaces said first call signaling channel, wherein said real-time communication formerly supported by said first call signaling channel is supported by second call signaling channel after said first communication link is lost (Col. 1 lines 34 – Col.2 lines 1-7 For example, since the gatekeepers also initialize the TCP/IP interface during a restart, where the gatekeepers are on the signaling path, a loss of all active calls can result because of the loss of the signaling path. In particular, the TCP/IP interface initialization causes clients having active calls on the signaling path to detect an error in the TCP/IP interface. As this

is a severe error, the signaling protocol stack is restarted by the local client and by the remote client, thereby resulting in a loss of all calls that were active or in progress in these endpoints. As another example, a gatekeeper restart may result in inconsistent endpoint registrations to a gatekeeper. In particular, a client that is not engaged in a call is not able to detect that its gatekeeper has failed, because in H.323 the link between endpoint and gatekeeper is not consistently supervised. If the gatekeeper failure lasts only a short time, the failure does not have any effect on the registered endpoints' operation. However, if the gatekeeper failure lasts a long time, the client must find an alternate gatekeeper in order to maintain the client's readiness to establish calls. Many current H.323 implementations perform an audit of the gatekeeper connection either autonomously by clients or via gatekeepers by periodically causing all clients to re-register with their zone's gatekeeper (e.g., H.323 RAS procedures). The re-registration thus allows the clients to detect a gatekeeper failure, perform recovery with this gatekeeper, and if recovery is unsuccessful, register with an alternate gatekeeper. However, the H.323 client terminal is not able to recover the failed connection, until the re-registration is due to take place. Typically, re-registration takes place only periodically every few minutes (because more frequent re-registration may cause excessive load on an already overloaded network) and the user must re-initiate call set-up again. As these re-registrations occur only periodically, inconsistent registrations may occur due to the time delay between re-registrations. In other implementations, a back-up gatekeeper may be provided which is continually updated so that the alternate can immediately replace the failed gatekeeper and take over the operation with IP addresses and ports as the master gatekeeper. However, this approach can be much more expensive compared to the average system cost per endpoint.)

Referring to claim 9, Korpi discloses all the limitations of claim 9, which is described above. Korpi also discloses a second communication endpoint; and a third communication link, wherein said third communication link is established between said first and second communication endpoints (Col. 2 lines 17-40 A system and method in an H.323 network for automatically reestablishing signaling that was interrupted due to gatekeeper failure. Primary and secondary gatekeepers (104a, 106a) establish a supervisory link (1b) with one another while the media connection is set up between client terminals (112a, 114a). The primary gatekeeper (104a) also establishes the H.225/H.245 signaling between the client terminals. If the primary gatekeeper (104a) fails, the H.225/H.245 connections go down, but the media connections will continue. The secondary gatekeeper (106a) than takes over the call and sends a message to its zone's clients that the H.225/H.245 connections need to be reestablished. Further, the secondary gatekeeper (106a) sends a message to the other zone's gatekeeper (if any) of what has occurred. The clients then reestablish the H.225/H.245 channel by using the original setup message with a new Reestablish parameter. The receiving client receives the message, re-establishes the signaling connection and continues using the existing media channel for the media stream of the call.)

Referring to claim 12, Korpi discloses al the limitations of claim 12, which is described above. Korpi also discloses wherein said first communication comprises a gateway (Col. 3 lines 41-56 It is noted that, while illustrated as discrete units, gatekeeper functionality can be provided within another H.323 entity, such as the gateway or other network servers. Moreover, while illustrated

as separate units, typically, restart control functionality is implemented in software. Further, while illustrated specifically as being within a gatekeeper, the restart control units may be implemented in any entity along the signaling path of a call. Thus, FIG. 1 is exemplary only.)

Referring to claim 13, Korpi discloses al the limitations of claim 13, which is described above. Korpi also discloses wherein said first communication endpoint comprises a first gateway and at least a first telephony device interconnected to said gateway (Col. 5 lines 20-37 An exemplary gatekeeper 104 according to an embodiment of the invention is shown in FIG. 3. As is known, the H.323 gatekeeper 104 performs address translation from LAN aliases for terminals and gateways to IP or IPX addresses (as defined in the RAS specification) as well as bandwidth management (also specified within the RAS specification). The H.323 gatekeeper 104 is further used for call routing. The H.323 gatekeeper 104 thus includes a network interface 302, a control processor 300 and a memory 304. The control processor 300 includes a restart control unit 105 according to the present invention. As will be described in greater detail below, the restart control unit 105 according to the present invention is configured to provide communication with primary and/or secondary gatekeepers and supervise call reestablishment if the primary gatekeeper fails. The memory 304 may be used to store call data information 306, as will be discussed in greater detail below.)

Referring to claim 14, Korpi discloses al the limitations of claim 14, which is described above. Korpi also discloses wherein said first communication endpoint comprises memory operable to store an address of said second communication gatekeeper (Col. 5 lines 20-37 An exemplary

gatekeeper 104 according to an embodiment of the invention is shown in FIG. 3. As is known, the H.323 gatekeeper 104 performs address translation from LAN aliases for terminals and gateways to IP or IPX addresses (as defined in the RAS specification) as well as bandwidth management (also specified within the RAS specification). The H.323 gatekeeper 104 is further used for call routing. The H.323 gatekeeper 104 thus includes a network interface 302, a control processor 300 and a memory 304. The control processor 300 includes a restart control unit 105 according to the present invention. As will be described in greater detail below, the restart control unit 105 according to the present invention is configured to provide communication with primary and/or secondary gatekeepers and supervise call reestablishment if the primary gatekeeper fails. The memory 304 may be used to store call data information 306, as will be discussed in greater detail below.)

Claims 21-23 are rejected under 35 U.S.C. 102 (b) as being anticipated by Ton (US 6,771,623 B2)

Referring to claim 21, Ton discloses a communication system endpoint, comprising: means for communicating and said first means for controlling aspects of an exchange of data in real-time between said communication system endpoint and a second communication system endpoint (Col.3lines 10-15); means for generating a lightweight RRQ message in response to a loss of a communication link between said means for communicating and said means for controlling; aspects of an exchange of data between said communication system endpoint and a second communication system endpoint (Col. 9 lines 50-53 "HA1 will send 555 the HA mobility

binding update message to the redundancy HA, HA2, to indicate that the MN has registered. HA2 will then acknowledge 560 this update to HA1); and means for interconnecting said at least a first communication endpoint means and said means for controlling aspects of an exchange of data between said communication system endpoint, wherein a first call signaling channel in support of a first real-time communication is established. (Col. 10 lines 51-59 When implementing using shared redundancy HAs existing HAs on the network will be used to re-establish MIP sessions from the failed HA. The Home Agent Redundancy is based on primary/ secondary concept; the default HA is the primary HA and all the other on the network are secondary HAs. The HA redundancy feature will use the periodic muticast or unicast messages to send Home Agent Load Information Message from the primary HA to all secondary HAs indicating that it is still active.)

Referring to claim 22, Ton discloses the limitations of claim 22 which is described above. Ton also discloses means for storing a list of alternate means for controlling aspects of an exchange of data between said communication system endpoint and a second communication system endpoint, wherein said means for generating a lightweight RRQ message addresses said lightweight RRQ message to second of said alternate means for controlling wherein a second call signaling channel is established. (Col. 5 lines 43-54 First the MN receives an agent advertisement 215 from the Foreign Agent ("FA"). It sends the Mobile IP Registration Request ("RRQ") 220 with the statically configured HA address. The FA forwards the Mobile IPRRQ 225 to the configured HA, Home Agent #1. HA1 will look in its local HA load information table to find a HA where the load is less than its own. If it finds one that is less busy then it will return

230 a Mobile IP Registration Reply ("RRP") with error code 130 (Insufficient resources) including a new mobile IP extension will have a HA IP Address Update with the address of the second Home Agent (HA2).

Claim 23 is likewise rejected using the same reasoning and citations for claim 22 since they recite identical limitations.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 17, 18, 20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Korpi (US 6,785,223 B1) in view of Ton (US 6,771,623).

Referring to claim 15, Korpi discloses the limitations of a computer –readable medium encoded with a computer program for performing a method, the method comprising: Registering an endpoint with a first gateway , wherein a first signaling link that supports a first bearer channel comprising a real-time communication is established between said endpoint and said first gateway; in response to a loss of said signaling link, (Col. 1 lines 34 –Col.2 lines 1-7 For

example, since the gatekeepers also initialize the TCP/IP interface during a restart, where the gatekeepers are on the signaling path, a loss of all active calls can result because of the loss of the signaling path. In particular, the TCP/IP interface initialization causes clients having active calls on the signaling path to detect an error in the TCP/IP interface. As this is a severe error, the signaling protocol stack is restarted by the local client and by the remote client, thereby resulting in a loss of all calls that were active or in progress in these endpoints. As another example, a gatekeeper restart may result in inconsistent endpoint registrations to a gatekeeper. In particular, a client that is not engaged in a call is not able to detect that its gatekeeper has failed, because in H.323 the link between endpoint and gatekeeper is not consistently supervised. If the gatekeeper failure lasts only a short time, the failure does not have any effect on the registered endpoints' operation. However, if the gatekeeper failure lasts a long time, the client must find an alternate gatekeeper in order to maintain the client's readiness to establish calls. Many current H.323 implementations perform an audit of the gatekeeper connection either autonomously by clients or via gatekeepers by periodically causing all clients to re-register with their zone's gatekeeper (e.g., H.323 RAS procedures). The re-registration thus allows the clients to detect a gatekeeper failure, perform recovery with this gatekeeper, and if recovery is unsuccessful, register with an alternate gatekeeper. However, the H.323 client terminal is not able to recover the failed connection, until the re-registration is due to take place. Typically, re-registration takes place only periodically every few minutes (because more frequent re-registration may cause excessive load on an already overloaded network) and the user must re-initiate call set-up again. As these re-registrations occur only periodically, inconsistent registrations may occur due to the time delay between re-registrations. In other implementations, a back-up gatekeeper may be provided which

is continually updated so that the alternate can immediately replace the failed gatekeeper and take over the operation with IP addresses and ports as the master gatekeeper. However, this approach can be much more expensive compared to the average system cost per endpoint.) Korpi did not disclose sending a lightweight registration request (RRQ) message to a second gateway in response to receiving a registration confirmation message from second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a real-time communication. The general concept of in response to receiving a registration confirmation message from second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a real-time communication is well known in the art as taught by Ton. Ton discloses in response to receiving a registration confirmation message from second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a real-time communication(Col. 6 lines 41-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Korpi to include in response to receiving a registration confirmation message from second gateway, establishing a second signaling link between said endpoint and said second gateway, wherein said second signaling link supports said first bearer channel comprising a real-time communication in order for communication to be carried out.

Referring to claim 17, Korpi and Ton discloses all the limitations of claim 17 which is described above. Ton also discloses in response to receiving a registration rejection message (Col.6 lines 47-53), sending a lightweight RRQ message to a third gateway. (Col. 6 lines 41-45)

Referring to claim 18, Korpi and Ton discloses all the limitations of claim 18 which is described above. Ton also discloses sending a lightweight RRQ message to a third gateway (Col. 6 lines 41-45).

Referring to claim 20, Korpi and Ton discloses all the limitations of claim 20 which is described above. Ton also discloses wherein said computational component comprises a logic circuit (Col.2 lines 6-9).

Claim 11 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Korpi (US 6,785,223 B1) in view of Tsutsumi (US 6,904,277 B2).

Referring to claim 11, Ton discloses all the limitations of claim 11, which is described above. Ton does not disclose, "wherein said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone." The general concept of having wherein said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone is taught by Tsutsumi. Tsutsumi discloses said telephony device comprises

at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone (Col. 1 lines 60-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ton to include said telephony device comprises at least one of an IP telephone, a soft telephone, a videophone, and a soft videophone in order for communication to be carried out.

Response to Arguments

Applicant's arguments filed on 6/2/08 have been fully considered but they are not persuasive.

Summary and Response to Arguments

A. Applicant argues the rejection under 35 U.S.C. 102(b) under Korpi for claims 1-10, and 12-14 as Korpi does not disclose the claimed limitations, as Korpi does not disclose sending a keep alive message to a secondary alternate gatekeeper in response to losing a call signaling channel.

As to point A, applicant's arguments are not persuasive, as in the context of providing at least one link in a uniform resource locator format. The examiner respectfully disagrees with applicant assertions. Korpi discloses sending a keep alive message to a secondary alternate gatekeeper in reponse to losing a call signaling channel . (Col. 5 lines 48-63 As part of an initialization procedure, in a step 402, Client 1 registers with the gatekeeper GK 1 and Client 2 registers with gatekeeper GK 3 (FIGS. 5A and 6A). In addition, in a step 404, the gatekeepers GK 1 and GK 2 exchange supervisory/synchronization messages (1b of FIG. 5A; FIG. 6A), via their respective restart control units 105, so that the gatekeeper GK 2 can monitor if the gatekeeper GK 1 fails i.e. loss. In particular, a keep-alive message may be sent by the secondary gatekeeper (GK 2) to the primary gatekeeper (GK 1) which responds with a confirmation message. Every time a new call is set up, a call data synchronization message is sent to the secondary gatekeeper GK 2 (and stored, e.g., in memory 304) or stored in a commonly accessible data store (not shown). This data contains all information about the outgoing call (i.e., calling party, called party, aliases, transport addresses and other related information). Examiner gave the broadest interpretation to the claim language. Nothing in the applicants amended claim language teaches against such interpretation.

B. Applicant argues the rejection under 35 U.S.C. 103(a) Korpi in view of Ton for claims 15 as Korpi and Ton does not disclose the claimed limitations, sending a keep alive message in order to effectively reestablish a lost call signaling channel, sending a keep alive message that comprises a lightweight registration request, or sending a lightweight registration request in response to losing a signaling link.

As to point B, applicant's arguments are not persuasive, Korpi discloses sending a keep alive message in order to effectively reestablish a lost call signaling channel, sending a keep alive message (Col. 5 lines 48-63 As part of an initialization procedure, in a step 402, Client 1 registers with the gatekeeper GK 1 and Client 2 registers with gatekeeper GK 3 (FIGS. 5A and 6A). In addition, in a step 404, the gatekeepers GK 1 and GK 2 exchange supervisory/synchronization messages (1b of FIG. 5A; FIG. 6A), via their respective restart control units 105, so that the gatekeeper GK 2 can monitor if the gatekeeper GK 1 fails i.e. loss. In particular, a keep-alive message may be sent by the secondary gatekeeper (GK 2) to the primary gatekeeper (GK 1) which responds with a confirmation message. Every time a new call is set up, a call data synchronization message is sent to the secondary gatekeeper GK 2 (and stored, e.g., in memory 304) or stored in a commonly accessible data store (not shown). This data contains all information about the outgoing call (i.e., calling party, called party, aliases, transport addresses and other related information). Ton discloses that comprises a lightweight registration request, or sending a lightweight registration request in response to losing a signaling link (Col. 6 lines 41-45 The steps of the method are illustrated in FIG. 2. First the MN receives an agent advertisement 215 from the Foreign Agent ("FA"). It sends the Mobile IP Registration

Request ("RRQ") 220 with the statically configured HA address. The FA forwards the Mobile IP RRQ 225 to the configured HA, Home Agent #1 ("HA1"). HA1 will look in its local HA load information table to find a HA where the load is less than its own. If it finds one that is less busy then it will return 230 a Mobile IP Registration Reply ("RRP") with error code 130 (Insufficient resources) including a new Mobile IP extension, or alternately using error code 136 including the address of the second Home Agent HA2. The new Mobile IP extension will have a HA IP Address Update with the address of the second Home Agent ("HA2") . Examiner gave the broadest interpretation to the claim language. Nothing in the applicants amended claim language teaches against such interpretation.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashley d. Turner whose telephone number is 571-270-1603. The examiner can normally be reached on Monday thru Friday 7:30a.m. - 5:00p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-2603. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner:

Ashley Turner

Supervisory Patent Examiner

Nathan Flynn

Date:_____ Date:_____

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2154